Trailing Cable Repair Exercise

Problem Booklet

Behavioral Research Aspects of Safety and Health Group (BRASH) Institute for Mining and Minerals Research (IMMR) University of Kentucky, Lexington, Kentucky

Instructions

Read the problem situation described on the next page. Study the map on page 4 until you understand the location of the miners and equipment in the problem. Next, answer each of the 7 questions. Do them one at a time. Don't jump ahead, but you may look back to earlier questions and answers. There is one correct choice for each question.

After you have selected a choice to a question, look up the number for that choice on the answer sheet. Select your answer to each question by rubbing the developing pen between the brackets on the answer sheet. A hidden message will appear and tell you if this is the correct choice or if you need to "Try again!". The object is to select the correct choice for each question in as few attempts as possible. When you have finished, you will learn how to score your performance.

Background

Fix-it is a qualified mine electrician.

Joe is new to this mine.

You are trained in basic first aid, but not CPR.

Problem

You are the roof bolter operator in the #1 entry, as shown in Figure 1 on page 3. You have reported damage to the bolter's trailing cable and are waiting for the cable to be spliced. The damage is about 30 feet from the bolting machine. The mechanic, Fix-it, and his helper, Joe, come to make the splice. Your helper has left the pinner and no one else is around. The section is wet.

Now turn to the first question and begin.

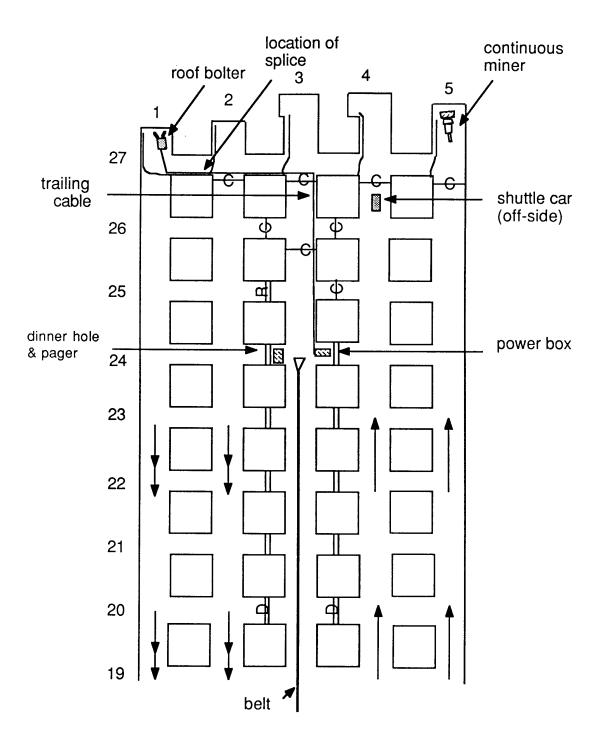


Figure 1: Section Map

Question A

What is the <u>first</u> thing that should be checked before making the splice in the cable?

- 1 Water in the mine
- 2. Location of the splice
- 3. The qualifications of Fix-it and Joe
- 4. Personal protective equipment
- 5. Power on the cable

Question B

Fix-it sends Joe to cut the power. What should you do?

- 6. Nothing, it is not your job.
- 7. Tell Fix-it that he should trace the cable back, lock it out, and tag it himself.
- 8. Go with Joe to be sure that he disconnects the correct cable.
- 9. Offer to do it yourself. It's your machine and you're just standing around anyway.

Question C

Joe returns and tells Fix-it that the cable had already been disconnected when he got to the power box. What should Fix-it do now?

- 10. Send Joe to find out who disconnected the cathead.
- 11. Go ahead and splice the cable.
- 12. Go to the power box and add his lock to the cathead.
- 13. Send you to the box to see if the cable is disconnected properly.

Question D

Joe goes onto the dinner hole to grab a sandwich. Fix-it cuts into the cable. He jerks and then slumps to the floor, with his arms and upper body across the cable. What is the <u>first</u> thing you should do?

- 14. Put on dry gloves, stand in a dry spot, and pull the cable out from under Fix-it.
- 15. Stand in a dry spot and use dry gloves to grab Fix-it's cap lamp cord and pull him away from the cable.
- 16. Go and cut the power at the box.
- 17. Grab a dry roof bolt and use it to roll Fix-it off the cable.

Question E

The power has been cut and you have moved Fix-it away from the cable. What is the $\underline{\text{first}}$ thing you should do now?

- 18. Cover Fix-it with a coat to keep him warm.
- 19. Go get help.
- 20. Check Fix-it's hands for burns.
- 21. Check Fix-it's breathing.

Question F

When you find Fix-it is not breathing, what should you do?

- 22. Immediately begin CPR.
- 23. Check his airway and begin mouth to mouth rescue breathing if necessary.
- 24. Take his pulse. If his pulse is absent, do nothing.
- 25. Run and get help.

Question G

After about 5 minutes of mouth to mouth rescue breathing, Fix-it begins breathing on his own. While you are treating Fix-it for shock and burns, Joe comes back. What is the <u>first</u> thing you should tell him to do?

- 26. Stay out of the way, he's caused enough trouble.
- 27. Go and find someone to finish splicing the damaged cable.
- 28. Go and phone outside to report the accident.
- 29. Go and find a boss and report the accident.

End of Problem

Scoring your performance

- 1. Count the total number of responses you colored in that were marked "correct." Write this number in the first blank on the answer sheet.
- 2. Count the total number of "incorrect" responses you colored in. Subtract this number from 22. Write the difference in the second blank on the answer sheet.
- 3. The best score is 29. The worst score is 0.